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ABSTRACT

The compilation of summaries of completed research studies in agricultural education includes reports of 48 studies reported during 1973 and 1974 from nine States of the Southern region. The studies are listed alphabetically by author. Each entry includes bibliographic data and descriptions of each study's purpose, methods, and findings. The document concludes with a list of research studies in progress in 1974-75 and a subject index. (BP)

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SUMMARIES OF RESEARCH STUDIES IN AGRICULTURAL EDUCATION

SOUTHERN REGION

1973-74

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Louisiana State University and
Agricultural and Mechanical College
School of Vocational Education
Baton Rouge, Louisiana

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SOUTHERN REGION

1973-74

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Baton Rouge, Louisiana

INTRODUCTION

This compilation of research in agricultural education includes summaries of 48 studies reported during 1973-74 from 9 states of the Southern Region.

Abstracts of studies completed in 1973-74 were reported by state departments of education and teacher education institutions in the region. All studies submitted are included in this report although some may not meet the criteria that were established for the selection of studies to be included in the division publication.

This compilation of Summaries of Research Studies in Agricultural Education is an activity of the Research Committee of the Agricultural Education Division of the American Vocational Association.

Charlie M. Curtis
Southern Region Representative
Research Committee
Agricultural Education Division
American Vocational Association

SUMMARIES OF STUDIES IN AGRICULTURAL EDUCATION
SOUTHERN REGION, 1973-74

ADEGBOYE, JOHNSON BAMIDELE. A Study of FFA and 4-H Programs, Organization, and Activities in Oklahoma with Implications for Nigeria. Report, M.S., 1974. Oklahoma State University. 56 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--A major purpose of the study was to secure judgments from four selected groups regarding the relative importance of five categorized principles of youth organization development and operation. Another major purpose of the investigation was to find out what implications findings of the study might have on promoting similar organizations in Nigeria.

Method.--Data were collected from 30 vocational agriculture teachers, 30 county extension agents in Oklahoma, 15 international students, and 12 graduate students in the Agricultural Education Department at Oklahoma State University. These were then analyzed to determine the effectiveness and relative importance of (a) the participation principle, (b) the recognition principle, (c) the organization principle, (d) the sponsorship principle, and (e) the leadership principle in both 4-H clubs and FFA organizations.

Findings.--Analyses of data show that: (1) membership participation, (2) members' interests, (3) financial aides, (4) parents' support, (5) good leaders, (6) sound organizations, and (7) effective teaching methods coupled with (a) projects work, (b) demonstration, (c) judging contest, (d) group action contest, (e) exhibitions, and (f) recreational activities are identified as the common factors contributing to the development and maintenance of the two organizations.

ASMATY, ABDUL A. Employment Opportunities of Vocational Agriculture Students in Afghanistan. Report, M.S., 1973. Oklahoma State University. 59 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--The purpose of this study was to identify those factors affecting the job opportunities of vocational agriculture graduates by presenting accurately the prevailing economic, social, and educational conditions affecting the agriculture of Afghanistan.

Method.--An analysis of data and presentation of information was secured from statistical sources. Data included performance activities of the three five-year plans in various economical, agricultural, and educational fields of the country.

Findings.--The following conclusions were reached with respect to agriculture: (1) Wheat is the most important grain crop, accounting for 42.02 percent of total agricultural production; fruit ranked second with 13.7 percent of total production. (2) In livestock, sheep accounted for the highest percentage of production. (3) The value of Afghanistan's exports mainly depended upon agricultural products; in 1971 the total agricultural commodity was 72.9 percent.

The following conclusions were reached with respect to education: (1) The number of students enrolled in vocational education, specifically in vocational agriculture, is too low when compared to those in general academic education. (2) The percentage of graduates in general high schools was 68.12 percent, whereas in vocational schools it was only 31.88 percent. (3) The percentage of employment of vocational agriculture graduates (12th grade) constituted 60.53 percent of total employment of graduating students in main agricultural projects. (4) Both the Ministry of Agriculture and the Ministry of Education provide training programs in agriculture.

BANKS, JESS. A Comparison of Identified Teaching Success Characteristics of Adult Vocational Teachers with Their Attitude Inventory Scores. Thesis, M.S., 1974. Oklahoma State University. 53 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--The major purpose of this study was to determine if there are certain identified teaching success characteristics that can be correlated with the attitude inventory scores of adult vocational teachers.

Method.--Data were collected by the investigator at three Manpower Skills Centers in Oklahoma. The Minnesota Teacher Attitude Inventory was administered to thirty-three skill instructors. These same instructors rated themselves as they perceived themselves on stated teaching characteristics as did their students and administrators. The three skill center administrators rated their own teachers and three hundred and thirty-four students rated their individual instructors.

Findings.-- It was found from the analyses of data that little or no correlation was found between the MTAI scores and the criterion ratings of the teachers and students. There was a slightly significant correlation between the MTAI and the criterion rating of the administrators. It is doubtful that the MTAI would be of value as an aid for selection and hiring vocational instructors for adult vocational classes. There was little or no correlation between the MTAI scores and the student attendance and completion rates. There was a significant correlation between the teachers' criterion self ratings and their student class attendance rate. The female instructors scored higher on the MTAI than did the male instructors. The educational level of the female instructors was also higher than the educational level of the male instructors. The free response questions brought out more strengths than weaknesses in regard to the teachers as they were viewed by their administrators, students and themselves.

BRAKER, CLIFTON R. The Image of the FFA as Perceived by Current Active Members and Advisors. Dissertation, Ed.D., 1973. Oklahoma State University. 153 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--In this study, an effort was made to determine the image of the Future Farmers of America organization as perceived by current active members and advisors.

Method.--FFA chapters were selected randomly across the United States, with each state having the same representation as that state has delegates to the National FFA Convention, for a total of 112 chapters. Survey packets were mailed to each advisor with instruction on how to complete the survey. Seventy-six schools returned the completed packet.

Part one of the questionnaire contained 41 statements designed to assess the attitudes of advisors and active members toward the operation and organization, relationship of vocational agriculture, and the degree and awards program of the FFA. For part two, advisors and members were asked to rank in order of importance selected problems and values gained from or experience offered by the FFA.

Findings.--Respondents were in general agreement with the current policies and guidelines of operation and organization of the FFA, except members felt that on local levels members should have more responsibilities of operation and selection of National officers. FFA members felt that a greater number and variety of awards and activities were needed for the agribusiness student. Members and advisors were in general agreement that the current degree and awards programs were adequate.

Major problems identified were lack of involvement, interest, and participation by members and a lack of adequate communication system between national, state, and local levels.

Respondents were in general agreement that the development of agricultural leadership, citizenship, and cooperation are still the major foundations on which the organization should be based.

FFA is an important influence on America's youth with an interest in agriculture. The agreement found among regions indicates the strength of the foundation of the FFA. The consistent agreement that FFA was an integral part of the vocational agriculture program is encouraging. However, the need to develop communication among national, state, and local levels is a pressing issue as is the need within local chapters to create a local program which will fully involve the membership.

BRINK, KENNETH DEAN. A Study of the Role of Vocational Agriculture Teachers in Environmental Awareness in Oklahoma. Thesis, M.S., 1974. Oklahoma State University. 46 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--The major purpose of this study was to determine the role of vocational agriculture teachers in environmental awareness in Oklahoma.

Method.--Data were collected by means of a mailed instrument designed to obtain teacher information regarding their attitudes concerning agricultural pollution, what is being taught about pollution, and what they feel should be taught about pollution in agriculture. Twenty teachers were selected at random from each of the five supervisory districts in Oklahoma. A total of 92 teachers responded to the instrument.

Findings.--It was found that teachers feel that the problem of agricultural pollution in Oklahoma is minor at the present and the perceived role in environmental awareness is limited. Environmental education is conducted mostly on an informal basis in Oklahoma with agriculture teachers contributing very little to environmental awareness. Agriculture teachers feel that environmental education should be taught in high school with the science teacher being the primary instructor. Agriculture teachers are hesitant in volunteering to teach an elective subject in environmental education and are not fully utilized as resource personnel for coordination and assistance. Environmental awareness could be increased among farmers by including subjects involving environmental pollution in adult and young farmer classes. Legislation concerning environmental quality will also increase awareness. Agriculture teachers feel that they are presently teaching the subjects they should teach concerning agricultural pollution and would need additional college courses in environmental science prior to teaching environmental education classes.

CARL, HELEN H. An Assessment of Curricular and Supervisory Practices in Business Education in the Public High Schools of Kentucky. Doctoral dissertation, Department of Vocational Education, University of Kentucky, Lexington.

Purpose.--The purposes of the study were to determine the present status of business education in Kentucky, to appraise curricular and supervisory changes that have taken place in the last two decades, and to evaluate the effectiveness of supervision in business education as conducted by the State Department of Education.

Method.--The study was divided into two phases. The first phase was to ascertain present status and curricular changes through a study of enrollment figures. This information was secured from the records of the State Department of Education. The second phase was to ascertain the extent to which teachers felt supervisory practices were meeting their needs. These data were obtained from questionnaires sent to a 25 percent sample of business programs in Kentucky.

Findings.--A comparison of enrollments and class offerings for 1973 with those of 1931 and 1951 showed enrollments and course offerings increasing in number and variety.

A comparison of two types of business programs--vocational and non-vocational showed a great disparity in innovation between the two types.

There was also a sharp contrast between supervisory practices rendered to vocational and non-vocational programs. Ten different categories (45 items) of supervisory practices were evaluated. Of the 45 items evaluated, vocational personnel indicated that 21 were meeting existing needs whereas 24 items showed unmet needs. The same evaluation by non-vocational personnel showed that for all 45 items teachers needs were not being met.

It would seem that some definite actions should be taken to provide services for the non-vocational business departments equivalent to that provided for vocational business departments. This seems imperative as there are 127 high schools with vocational business programs and 163 high schools with non-vocational business programs.

CLINE, H. DWIGHT. A Study of the Relationship of Selected Factors and Student Achievement in Auto Mechanics. Doctoral Dissertation, 1974. Department of Vocational Education, University of Kentucky, Lexington.

Purpose.--The purpose of this study was to determine the factors affecting student achievement in auto mechanics.

Method.--All secondary auto mechanics students in Kentucky who were completing their second year of instruction under the same teacher were included in this study. The total number of students was 207. The total number of teachers was 26. Data for the study were obtained from the Coleman Verbal Ability Test, a teacher questionnaire, the Ohio Auto Mechanics Achievement Test, the Short Form Test of Academic Aptitude, and a student questionnaire.

Findings.--The competency level of the teacher was a primary factor influencing student achievement in auto mechanics.

The verbal ability of the teacher significantly influenced student achievement.

Younger students achieved more than older students.

The mother's level of education appeared to influence student achievement in auto mechanics.

Student intelligence was the primary factor influencing student achievement in auto mechanics.

The age of the teacher was not significantly related to student achievement in auto mechanics.

Beyond a minimum of five years, additional years of occupational experience in auto mechanics, by teachers, appeared to be unrelated to student achievement.

Years of teaching experience appeared to be unrelated to student achievement.

The number of college hours completed by the teacher did not significantly influence student achievement.

The number of college hours completed in Vocational Education courses by the teacher did not significantly influence student achievement.

Socio-economic status as measured by the father's occupation did not significantly influence student achievement.

The parent's level of income had no significant influence on student achievement.

The father's level of education did not significantly influence student achievement.

COOPER, ELMER. Role of Principals of Vocational-Technical Centers in Virginia as Perceived by Incumbents, Superintendents, and Teachers. Dissertation Ed.D., 1974, Virginia Polytechnic Institute and State University. 154 p. Library, Virginia Polytechnic Institute and State University, Blacksburg.

Purpose.--The purpose was to determine congruence in the role of principals of vocational-technical centers in Virginia as perceived by incumbents, and their superintendents and teachers.

Method.--A list of 78 items believed to be functions of principals of vocational-technical centers was identified from the literature and subjected to a jury of experts. The final instrument consisted of a list of 48 items with a Likert-type scale and questions to obtain demographic data. Twenty-three out of the 24 vocational-technical centers in the state were included in the study. The mailed instrument was returned by 23 superintendents, 23 principals, and 65 teachers. The teacher returns were from a 20 percent sample.

Means and standard deviations were obtained on each item for each of the three subgroups. Factor analysis of the items resulted in the identification of six factors underlying the 48 functions. A z-test was used to determine the differences between the sample of teachers, and the principals and superintendents on each factor.

Findings.--The findings were as follows:

1. Principals and their superintendents had congruent perceptions of the role of principals of vocational-technical centers in Virginia.

2. Teachers viewed the role of principals differently than did superintendents and principals.

3. Perception of the role of principals of vocational-technical centers by superintendents, principals, and teachers was not related to the size of the vocational-technical center; sex of staff members; years of formal education of staff members; years of experience as a vocational teacher; years of experience as an administrator of vocational programs; nor the years of work experience (in fields other than education) by staff members.

4. The 48 items in the research instrument constituted definite functions of principals of vocational-technical centers in Virginia.

The recommendations from the study were:

1. Present and prospective principals should be trained to perform the functions identified in the study.

2. Present and prospective staff personnel in role-defining groups should be made cognizant of the functions of the principal which were identified.

3. Teachers and administrators in vocational-technical centers should review the functions of the principal to locate and resolve any incongruences of perception which may prevail.

4. Studies should be conducted to determine specifically the research competencies needed by principals.

5. Research should be conducted to determine the functions of principals of vocational-technical centers which are common to other positions in vocational education.

6. The study should be replicated using a multi-state sample so that the findings can be inferred nationwide.

7. A study of the more controversial functions of the principal should be conducted.

8. A more comprehensive list of functions of principals should be identified to provide a basis for preservice and inservice education.

9. A study of the priorities placed upon various functions by role-defining groups should be conducted with emphasis upon the perceived priorities versus the actual priorities.

10. A study should be conducted to determine why superintendents and principals tend to have congruent perceptions of the principal's role, while teachers seem to perceive the role differently than superintendents and principals.

CROSBY, RICHARD K. A Descriptive Study of Trade and Industrial Juniors in Kentucky. Dissertation, 1974. Department of Vocational Education, University of Kentucky, Lexington.

Purpose.--The primary purpose was to determine the effect of selected variables on the vocational maturity of randomly chosen trade and industrial juniors. Twelve hypotheses were tested in the main investigation.

Method.--Kentucky was divided into the areas of western Kentucky, north-central Kentucky and the Appalachian counties. A sample of juniors was chosen from four randomly selected vocational schools in each of the three designated areas of Kentucky. A total of 312 students participated in the study.

Findings.--Trade and industrial juniors who had higher mental maturity tended to be more vocationally mature than those with lower mental maturity.

The cultural influence of living in a different area of Kentucky did not have an effect on the vocational maturity of juniors enrolled in trade and industrial programs.

Social class status had very little effect on vocational maturity for the samples of juniors.

The juniors in the study who had higher verbal aptitude tended to have higher vocational maturity.

Achievement and vocational maturity were significantly related for all samples of trade and industrial juniors.

Urban juniors tended to be more vocationally mature than rural juniors.

Juniors who were more successful in a trade and industrial program tended to be more vocationally mature than less successful juniors.

Being enrolled in a specific trade and industrial program had no significant effect on the vocational maturity of the juniors.

CRUNKILTON, JOHN R. Pre-teacher Attitudes toward the Concepts of Classroom Teaching and High School Students Before and After Video Taping a Lesson with a Group of High School Students. Staff study 1974. Virginia Polytechnic Institute and State University. 24 p. Vocational and Technical Education Division, College of Education. Blacksburg.

Purpose.--The primary purpose of this study was to determine the appropriateness of preparing pre-teachers by video taping a micro lesson with a group of high school students versus the teaching of a micro lesson to college peers.

Method.--A semantic differential instrument was developed to measure the pre and post attitudes of pre-teachers concerning the concepts of classroom teaching and high school students. The pre-test was administered before the pre-teachers taught a 30 minute micro lesson to a group of five high school students while being video taped. The pre and post test were both administered during the methods course in Ag. Ed. A local high school's agricultural education facilities were used for taping the seven seesions of 2½ hours each. Each high school student received $5.00 per 2½ hour session of participation. Hypotheses were developed to test for a significant change in pre-teachers' attitudes on the concepts of classroom teaching and high school students between the pre and post tests.

Findings.--The null hypothesis H_0 that no difference in attitudes of pre-teachers towards the classroom teaching concept will occur between pre and post tests at the .05 level of significance was retained. Although a positive change in attitudes did occur.

The null hypothesis H_0 that no difference in attitudes of pre-teachers towards the high school student concept will occur between pre and post tests at the .05 level of significance was not retained.

After receiving the statistical data and assessing subjective comments of pre-teachers, the conclusion was made that pre-teachers went into their student teaching experiences with a greater degree of confidence, poise, and understanding of the teaching-learning process.

DRAKE, JAMES BOB. Agribusiness Occupations Follow-up. Follow-up of 1971-72 Agribusiness Occupations Terminees From the Secondary School Vocational Programs of Alabama. Staff Research Project, 1974, Auburn University. 89 p. Occupational Research & Development Unit, Auburn University, Auburn.

Purpose.--The primary purpose was to initiate a state-wide follow-up system for its vocational education program terminees at the secondary level.

Method.--All 1971-72 agribusiness occupations terminees from the secondary school vocational programs of Alabama were included in the study. The 271 agribusiness teachers reported 4,134 student terminees, who were all mailed the 36-question follow-up form. Returns were received from 1,199 (29.0 percent), from an initial mailing and one follow-up.

Findings.--Data were presented in 34 tables, relative to general information, basic information related to the vocational education program, basic employment information, continuing education information, and job placement information. In the appendix is included a listing of terminees' present job title and first job title, indicating present job status and relatedness of their training to these jobs.

EADDY, VANIK S. Agricultural Teacher Education Recruiting Practices in the Southern Region. Staff Study, 1974. Auburn University. 38 p., Department of Vocational and Adult Education, Auburn.

Purpose.--The primary purpose was to determine the following facts concerning agricultural teacher education recruiting practices in the Southern Region:

1. Key personnel involved in recruiting.
2. Effectiveness of recruiters.
3. Combinations or team approaches.
4. Organizational or unique patterns utilized.
5. Target groups of recruiting effort.
6. Activities conducted
7. Practices found to be especially successful, unique or innovative.

Method.--The data in this report were based on results from a questionnaire mailed to 38 head teacher educators and 14 state supervisors of agricultural education representing the Southern Region. Usable responses were returned by 31 of these representing a 59 percent return when teacher educators and supervisors were combined.

Findings.--Primary responsibility for recruiting was usually assigned to head teacher educators, but actually performed most frequently by teams of teachers, teacher educators, and supervisors working together. Secondary teachers of vocational agriculture were found to be actively engaged and enthusiastic ones were regarded as the most effective of recruiting personnel. There is no substitute for personal contact with potential students, hence individuals and groups having this personal contact were the most effective.

Recruiting activities were primarily conducted in the interest of each respective institution with teacher educators identified as a common element in team approaches. Effective use was made of Collegiate FFA,

Alpha Tau Alpha, and other agricultural education organizations. State vocational agricultural professional associations were frequently active in recruiting.

Recruiting efforts were addressed in descending order of importance to secondary programs in high schools, junior high school or exploratory programs, post secondary technical agricultural programs, academically oriented junior colleges, agricultural science majors, and secondary school programs in area vocational schools.

Recruiting methods reflected primary dependence upon personal content with prospective students through the FFA, visits to schools or homes, correspondence, instructor counseling, and career days. Use of the mass media was ranked least of all in primary importance.

Career opportunities were presented to prospective students emphasizing teaching vocational agriculture, agricultural extension, USDA, and agribusiness. Employment incentives most frequently presented in descending order of importance were salary, advanced study, professional status, social contribution, working conditions, vacation and leave policies, retirement and pension plans, and other fringe benefits.

When tabulated according to frequency of response, the following groups of information appeared to be significantly important to prospective students; namely, opportunity for employment after graduation, competitive salaries, working conditions, student financial aid, transfer status, and course of study requirements.

FLETCHER, LOYD WAYNE. Teacher and College Students Perceptions of Items Influential in the Decision to Teach Vocational Agriculture. Thesis, M.S., 1974. Oklahoma State University. 41 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--This study sought to identify and compare individuals, items, and situations perceived to be influential by respondents in three selected groups with regard to their decisions to qualify to teach vocational agriculture.

Method.--Respondents indicated on a five-point rating scale, the degree of influence 30 selected items exerted on their decision to qualify to teach vocational agriculture. The selected items were subdivided into related groupings with appropriate scores and rankings being assigned and analytical comparisons then being made between responses tendered by individuals classified within the three respondent groups.

Findings.--Analyses indicated that self-judgments and perceptions made by individuals within the three respondent groups ranked the influential items approximately the same within each sub-group. In the first sub-grouping of items, which included influential "persons," the local vocational agriculture teacher and the parents of the respondent were scored as ranking the highest, while the high school counselor was found to exert the least amount of influence. Among those appealing job characteristics which comprised the second sub-grouping of items those found to be most influential were "the opportunity to continue work with livestock" and "the opportunity to work with youth." The lowest ranking

items were "anticipated salary" and "opportunity to move into full-time farming." The third sub-grouping of items, asking for sources of final job confirmation, had as the most influential items "the individual's own experience in vo-ag" and "observation at events." Lowest ranked items were found to be "brochures, bulletins, etc." and "mass media."

GUZY, DAVID KEITH. A Study of Certain Practices Related to No-Tillage Corn Production by Adult Farmers in Orange County, Virginia. Thesis M.S., 1974, Virginia State College. 70 p. Library, Virginia State College, Petersburg.

Purpose.--To study those management practices presently being carried out by the farmers in no-tillage corn production in order to secure data for making adjustments in the present educational program, and to develop a list of recommendations for possible use by professional agricultural workers in their adult programs of education.

Method.--A questionnaire containing 52 questions was developed and a list of the 79 no-tillage corn growers in Orange County was secured. The questionnaire was evaluated by the supervisor of the agricultural experiment station, the extension agent, thesis professor and two teachers. Replies were received from 49 of the 79 farmers to whom questionnaires were mailed.

Findings.--The majority of the farmers planted corn on the same land for two or more consecutive years, and each farmer applied either 10-10-10 fertilizer or 9-18-9-3 fertilizer. The majority of the respondents indicated that no-tillage corn required more fertilizer than conventional corn. No-tillage corn required less labor and equipment. Paraquat and atrazine were applied by all farmers, and 57 farmers did not make any special effort to control insects. The prevailing practices were those of planting 12 pounds of seed per acre, at a distance of eight to ten inches apart, and with row spacing of 36 inches. Average returns were decidedly in favor of the no-tillage producers, however labor was a critical issue as the majority of the work had to either be done by the producer or let out on contract.

Adverse influences of bad weather were minimal in cases of no-tillage production. No-tillage producers were in favor of continuing in the program. Neighboring farmers represented the principle sources of information.

HABIBI, MOHAMMED NAZIR. A Projection of a Management by Objectives System for the Agricultural Extension Service of Afghanistan. Report, M.S., 1974. Oklahoma State University. 91 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--The study was developed to clarify and elaborate the concept of program planning and describe the projection and formulation of organizational goals, organizational objectives, performance objectives,

and evaluation by the system "Management by Objectives" in the hope of proposing, providing, and promoting the interest and motivation of professional workers in agricultural extension.

Method.--The initial step of this study was a comprehensive review of the literature combined with gathering information from other international students of the Extension Service of Afghanistan. The second step was developing organizational goals and objectives for the Extension Service of Afghanistan conforming with the system called "Management by Objectives." The third step was submitting the projected objectives to a jury of experts from the Oklahoma State University faculty for review and evaluation.

Findings.--The following are the highlights of this study: (1) Program planning should be based on the needs, interests, and level of the knowledge of the people and situation, such as economic, social, cultural, etc. of the society. (2) The nature of extension programs should be education oriented to increase general knowledge and understanding of the people to help themselves and understand and solve their own problems by their own efforts, incentive to motivate more people in performing, and flexible to fit all situations by minor modification and democratic to bring more success via more participation, interaction, and acceptance of responsibility as concerned individuals for the welfare and goodness of the society. (3) Effective management is needed for better performance, and mutual understanding in management increases the level of performance. (4) The effectiveness of the program is increased by continuous realistic and multi- dimensional evaluation. (5) Projection and realistic formulation of organizational goals and objectives under the system of "Management by Objectives" is an effective approach to enable organizations to expedite the performance via mutual understanding of manager and subordinate and gives the organization the direction to go and formulates function to do in a specific period of time.

HARRIS, JOHN MARK. An Evaluation of the Pre-Service Program for Teachers of Vocational Agriculture at Oklahoma State University. Report, M.S., 1973. Oklahoma State University. 116 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--The purpose of this study was to evaluate the teacher training program in vocational agriculture at Oklahoma State University during the school year of 1972-73.

Method.--A questionnaire was distributed to 33 student teachers during the Fall Semester, 1972 and 40 student teachers in the Spring Semester, 1973 for completion during the seminar following their student teaching assignments. Data from the questionnaires were tabulated and analyzed for recommendations in program revision.

Findings.--It was found that (1) in general, student teachers felt that the teacher training program was effective as conducted during the sample period; (2) a system of appraisal is needed for cooperating teachers,

and those teachers not meeting the demands of the program should be eliminated from it; (3) the basis for evaluation and weight given university staff visits should be made known to the student teachers; (4) follow-up studies should be made before curriculum revision is executed in accordance with this study; and (5) periodical evaluations should be conducted after program revision to assure changes as needed on a timely basis.

HANDLEY, STEVE NOLAN. The Utilization of Time by Florida Teachers of Agribusiness and Natural Resources in Their Professional Activities. Thesis, M.S., August, 1974, Agricultural and Extension Education Department, University of Florida, Gainsville.

Purpose.--The purpose of this study is to identify the average number of hours per week devoted to teaching Agribusiness and Natural Resources, and selected components thereof, in the State of Florida.

Method.--A mail questionnaire was used to collect the data. Two hundred seventy questionnaires were returned of the four hundred forty-five sent, totaling a 61 percent return.

Findings.--The total number of hours per week devoted to the profession of Agribusiness and Natural Resources Education ranged from 35 to over 61 hours and averaged 51.55 hours per week. Teaching activities ranged from a low of 20 to a high of 40 hours per week and averaged 34.25 hours per week. Nonteaching activities ranged from a low of 5 to a high of 25 hours per week and averaged 13.66. Duties not relating to vocational agriculture ranged from a low of .25 to approximately 3 hours per week and averaged 1.45 hours per week. The average number of hours per week devoted to instruction of adults and young farmers was 2.55.

By means of a contingency table the following activities were found to be independent of geographical location: (1) total number of hours devoted to the profession; (2) teaching activities; (3) other vocational agriculture duties; (4) duties not related to teaching vocational agriculture; (5) instruction on the land lab, and (6) strictly classroom instruction. Those activities found not to be independent of geographical location were: hours per week devoted to (1) instruction in the agriculture shop; (2) instruction on the ornamental horticulture facility; (3) instruction on the animal laboratory plot; and (4) the number of advisory group meetings per year. It was also found that the number of hours per week devoted to the total profession as an agriculture teacher is independent of the number of years of experience as an agriculture teacher.

HASH, J. ALEX. Problems of Reciprocity and Certification in the Southern Region. Staff Study, 1974. Clemson University. 18 p. Department of Agricultural Education, Clemson University, Clemson.

Purpose.--The purpose of this study was threefold. First, to determine the extent of reciprocity in teacher certification existing within the Southern Region; second, to identify the major obstacles in

certifying teachers from across state lines; and third, to ascertain recent trends in vocational agriculture teacher certification.

Method.--Data were collected by mailed questionnaires sent to head state supervisors and teacher educators in every teacher training institution in the Southern Region including Puerto Rico. A follow-up letter and a second questionnaire were mailed to non-respondents on November 20, 1973.

These two mailings resulted in replies from 11 out of 14 state supervisors for a percentage return of 78.o. On the other hand, replies were received from 27 out of 38 head teacher educators and/or their representatives for a percentage return of 71.1. The combined overall returns were 73.1 percent. However, every state except Puerto Rico was represented in the data collected.

Findings.--Much more reciprocity already exists within the Southern Region than is generally publicized.

Many state supervisors and teacher educators alike are not fully familiar with the reciprocity and teacher certification plans in their own states.

North Carolina's reciprocity Plan II based on Interstate Agreements and Plan III based on approval by NASDTEC come closest to achieving true reciprocity. However, Plan I based on approval by NCATE is also useful for reciprocity in teacher certification.

Approximately 87 percent of the respondents favored reciprocity in teacher certification.

Georgia's procedure for certifying out-of-state teachers appears practical if approval by NCATE can be broadened to include either NCATE or NASDTEC or Interstate Agreements.

At least 74 percent of the teacher education institutions reported certification requirements had been modified within the past five years.

Forty-five percent of these modifications included provisions for a minor field of concentration in technical agriculture.

All teacher education institutions in the region reported they were accredited by either the Southern Association of Colleges and Schools or the North Central Association.

HILL, GARY DEWAYNE. A Survey of Salaries and Working Conditions of Agriculture Teachers in the United States. Thesis, M.S., 1974. Oklahoma State University. 49 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--The primary purpose of this study was to compile and make available information regarding salaries and working conditions of agriculture teachers in the United States.

Method.--A questionnaire was sent to the department or agency in each state which directs the vocational agriculture program, and if no response was received, the questionnaire was sent to the Agricultural Education Departments in those states. The final return was 100 percent.

Findings.--There was a wide variation on many of the items from state to state, and many items varied within individual states. Twenty-two states varied on the months required on the job, while 12 months was the requirement in 17 states. Salaries of agriculture teachers ranged from $500 to over $1,000 per month for a B. S. degree and from $500 to $1250 for a M. S. degree.

Twenty-two states reported that there was no maximum number of hours an agriculture teacher could teach. Adult education was not required in 41 states, while 57 percent of the states allowed time for supervisory visits.

Travel reimbursement was paid in 69 percent of the states; per diem was paid in 75 percent; and farming was allowed in 77 percent of the states.

Certificate renewal required additional college credits in 32 states. A B. S. degree in Agricultural Education was required to teach vocational agriculture in 65 percent of the states, while 34 percent reported that they issued or utilized someone with an emergency teaching certificate.

HODGES, STANLEY LEON. Employee-Employer Assessment of the Effectiveness of Agricultural Mechanics Training Received at Modesto Junior College. Dissertation, Ed.D., 1973. Oklahoma State University. 116 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--The objectives of this study were to evaluate perceptions of former students and their employers regarding (1) the importance of nine skill areas to the job, (2) an evaluation of former students in each of the nine skill areas, (3) how former students' and employers' perceptions compared, (4) the need for additional training, (5) where the former students learned most about the nine skill areas, and (6) how the employer evaluated the former student when compared to other entry level workers.

Method.--A mailed questionnaire was used to collect data about these perceptions. The Kendall's Coefficient of Concordance, the Pearson Product Moment Coefficient, and chi-square were used to compare responses in certain areas.

Findings.--Former students and their employers perceived the importance of the skill areas to the job and student competency in the nine skill areas in much the same way. A greater percentage of former students than employers perceived a need for further training in all of the skill areas. The employers rated the competency of former students in the middle 50 percent when compared to other entry level workers. Modesto Junior College's Agricultural Mechanics program was considered to be the place where most of the nine skill areas were learned.

HOLT, WALON DARE. Occupational Aspirations of a Selected Group of Guthrie High School Students Enrolled in Vocational Agriculture Programs. Report, M.S., 1974. Oklahoma State University. 43 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--In this study an effort was made to determine what influence some factors had on the occupational aspirations of a selected group of Guthrie High School students.

Method.--In order to obtain data for this study, all junior and senior students enrolled in specialized areas of vocational agriculture at Guthrie High School were surveyed. These students were asked to fill out two separate surveys--one to secure general information on students and their families, and one for aspirations. Personal interviews were used as necessary.

Findings.--The following findings and conclusions emerged from this study: (1) Family income was not a major factor in relation to levels of student occupational aspirations. (2) The higher the educational level of parents, the higher the occupational aspirations of students. (3) The parents' occupational level slightly affected the occupational aspiration level of students in a positive manner. (4) There was no difference in the occupational aspirations between whites and blacks. (5) The age of parents had no effect on the occupational level of their children. (6) There was no difference between males and females in their occupational aspiration scores. (7) Students tended to enroll in the specialized areas which provided training consistent with their occupational aspirations at this point in time.

JOHNSON, WILLIS OTIS. Evaluation and Revision of a Curriculum for Agricultural Career Awareness in Oklahoma. Dissertation, Ed.D., 1974. Oklahoma State University. 95 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--The purpose of this study was to refine and improve a career awareness curriculum that was developed and implemented in two earlier phases of a funded research project and to appraise its effectiveness in aiding disadvantaged and minority group students in their knowledge of agricultural careers.

Method.--This study included the ninth grade students of eight vocational agriculture departments in Oklahoma. The schools were selected

with the help of the district supervisors. The criteria for selection were the numbers of disadvantaged and minority group students in each school and teachers who were interested in teaching agricultural careers. During this phase the curriculum units were revised based on the recommendations of the teachers that participated in Phase II. The major revisions were (1) lowering the reading level of all units, (2) illustrating and picture-coding the units, and (3) combining the agricultural cluster unit to eliminate repetition. The revised units were taught to the Vocational Agriculture I students in all eight schools. Pre-tests and post-tests were given to all students.

Findings.--It was found through the use of the correlated T-test that there was a statistically significant gain between the pre-and post-tests at the .01 level for all of the students that participated in the project. Use of analysis of variance (F value) showed that there were no significant differences between advantaged-disadvantaged or among ethnic group students at the .01 level. The lack of sufficient numbers in some categories precluded a complete statistical analysis. This was especially true of advantaged Black and Indian students . The descriptive information seemed to indicate that advantaged-disadvantaged categories may have more effect upon treatment than do ethnic categories.

It was concluded that the agricultural career awareness curriculum as constructed and utilized was beneficial in helping the advantaged-disadvantaged and ethnic group students get a realistic perception of themselves and agricultural occupations. It was further concluded that the project should be continued on a broader base.

JONES, MARSHALL. Certain Conditions and Situations Influencing the Development and Enhancements of Lawns and Homegrounds for Increased Use and Beauty. Thesis, M.S., 1974, Virginia State College. 67 p. Library, Virginia State College, Petersburg.

Purpose.--The primary purpose of this investigation was to determine the competence and methods for stimulating actions of respondents relating to several phases of home horticulture.

Method.--A ten-part questionnaire instrument was developed. It was pre-tested and selected as the instrument for collecting the data desired.

Three sampling methods were used: (1) Twenty-five random sample interviews, (2) A systematic sample of 250 names were selected from a 2,500 mailing list and (3) A 25-sample group interview sample. All of the persons selected were adult men and women. There was no great difference in the samplings, therefore it was concluded that the 300 respondents were fairly representative of the population.

Findings.--The respondents, in general, lacked knowledge of the sources of information, and exhibited a high degree of apathy toward securing and using the information. Sufficient knowledge and skills in selection and use of plant materials, pesticides, cultural and maintenance practices in home horticulture, along with the reluctance to effectively care for existing plantings were not in evidence. Cost was frequently mentioned as a point of concern. Approximately 45 percent of the respondents had earned college degrees, with over 50 percent being in the $10,000 to $20,000 income bracket. The size of the family appeared to directly influence the desire of the individual to seek technical assistance as 35 percent of the one and two family sizes expressed the greatest amount of interest.

KING, JR., STANFORD J. Factors Influencing the Foreclosure of Low-Interest Homes Financed by the Farmers Home Administration in Madison County, Alabama. Non-Thesis Study, 1974. Alabama A & M University, Department of Agribusiness Education, Normal.

Purpose.--The underlying purpose of this study was to determine what factors lead to the foreclosure of low-interest loans for homes or rural residents in Madison County, Alabama.

Method.--A personal interview and questionnaire were used to gather needed data. The personal interview gave the writer an opportunity to obtain unexpressed opinions not covered in the questionnaire. The questionnaire served as a basic tool in obtaining needed information concerning influencing elements of the lending program.

Findings.--Monthly payments, number in family and income influenced the length of time an individual stayed in a house more than other variables considered.

The other variables considered were significant in that they influenced whether or not an individual was foreclosed or voluntary conveyed.

Resources are available to rural residents to improve their housing situation through the Farmers Home Administration low-interest loan program.

In most instances, the terms and/or agreement made when procuring a loan are not fully understood by the borrower.

The Farmers Home Administration does not provide adequate guidance to borrowers with respect to budgeting and financial management.

LEE, JASPER S. and MOORE, DAVID M. A Survey of Need for Personnel in Educational Media and Technology in the State of Virginia. Staff Study, 1974. Virginia Polytechnic Institute and State University, 21 p. College of Education, Virginia Polytechnic Institute and State University, Blacksburg.

Purpose.--The purpose was to determine the current educational status and projected demand for specialists in educational media and technology in the State of Virginia.

Method.--The method used was to develop a survey form to gather certain information about the status of educational media and technology. This form was submitted by mail to local division school superintendents and deans of instruction in community colleges in Virginia and included persons responsible for both general education and vocational education.

Findings.--The study revealed that there were 63 media specialists and 69 combination librarian-media specialists in the public schools and community colleges in Virginia in 1974. In the next five years there will be a 68.0 percent increase in the number of media specialists and slightly over a 100 percent increase in the number of combination librarian-media specialists. Thirty-five percent of the educational media specialists and technologists will be required to have at least a Master's degree.

The areas of training needed by specialists in educational media and instructional technology were rated by the respondents. It was found that the following areas rated highest: utilization of media, managing media centers, producing instructional materials, and individualizing instruction. The areas rating lowest were social foundations of education, measurement and evaluation, educational psychology, philosophy of education, research in education, graphics, and producing motion pictures and television. The areas rated as intermediate in importance were librarianship, curriculum design, learning theory, communication theory, and cataloging materials.

LETLOW, JAMES CLOICE. Educational and Occupational Experiences of Louisiana High School Graduates. Ph.D. Dissertation, 1974, Agricultural Education Department, Louisiana State University, 249 p., Baton Rouge.

Purpose.--The primary purpose of this study was to determine the educational and occupational experiences of Louisiana high school graduates. It was also concerned with the curriculum pursued and elective courses taken in high school, and the effects of the high school curriculum on the graduates post high school education or training and on their occupational experiences.

Method.--The Descriptive Survey Method with the Mail Questionnaire Technique was utilized in this study. Information was obtained from completed questionnaires that were returned by 3,035 respondents; 1,612 females and 1,423 males.

Information obtained was programmed for computer processing by sex and by curriculum pursued to supply a frequency and percentage distribution of all items contained in the data gathering instrument. Statistical procedures utilized for analyzing the data were number and per cent distribution and the chi-square test of independence. Null-hypotheses were tested and were accepted or rejected at the .01 level of confidence.

Findings.--Louisiana high school graduates are restricted while in high school by the curriculum offered. Data reveal that 35.8 per cent claimed to have pursued a college preparatory curriculum; 51.8 per cent a general curriculum; 7.8 per cent a vocational curriculum, and 4.6 were classified or did not reply; even though most respondents took the same elective courses.

The elective courses, which determined curriculum pursued, were so limited or restricted that many respondents indicated that they had no choice of electives.

The curriculum pursued, as claimed by the respondents, revealed a highly significant difference on most items in the study; however, these differences were due to number distributions rather than percentages. When comparisons were made by per cent distribution very little differences were noted.

The conclusion was reached that most Louisiana high school graduates in reality, follow a general curriculum and that the curriculum pursued while in high school had very little effect upon the post high school education or training or upon the occupational experiences of Louisiana high school graduates.

MCCARTY, GLENN. Role Functions of the Community College President in Virginia as Perceived by Incumbents, Division Chairmen, and Teachers. Doctorate Dissertation, 1974. Virginia Polytechnic Institute and State University. 140 p. Library, Virginia Polytechnic Institute and State University, Blacksburg.

Purpose.--The purpose of this study was two-fold. The primary purpose was to determine whether or not discrepancies existed in perceptions of selected role functions of the presidency, as perceived by the presidents, division chairmen, and teaching faculty. A second purpose was to determine if role perceptions of presidents, division chairmen, and teachers toward the presidency were correlated with size of student enrollments in the 23 community colleges.

Method.--Data were obtained through the use of a 41 item questionnaire. All presidents and division chairmen were invited to participate in the study. The teachers surveyed consisted of a ten percent stratified random sample. The average response rate for the three groups was 86.5 percent. The data were analyzed statistically by factor analysis, discriminant analysis, z-test, and correlation coefficients (r's).

Findings.--Factor analysis of the responses resulted in the identification of ten factors underlying the 41 items or functions in the questionnaire. These ten factors were: (1) Direct Involvement with Faculty-Staff Development, (2) Public Relations of Securing and Allocating Financial Resources, (3) Representation Before the State Board, (4) Working Directly With Students, (5) Non-Educational Matters, (6) Consulting with Individuals and/or Groups, (7) Supervision and Evaluation of Instruction, (8) Personal Participation Concerning Facilities and

Grievances, (9) Staffing and Governance, and (10) Personal-Professional Development.

Results of the z-tests indicated that a statistically significant difference existed between teachers and presidents and between teachers and division chairmen on nine of the ten factors. The z-values between division chairmen and presidents were considered significantly different on seven of the ten factors. No statistically significant correlations were found between student enrollment and perceptions held by teachers and division chairmen. A moderately high correlation between president's perceptions and student enrollment was found on only one out of the ten factors.

MCMILLION, MARTIN B. Assembling and Using Occupational Data Concerning Former Students of Vocational Agriculture in Virginia. Staff Study, 1974. Virginia Polytechnic Institute and State University. 97 p. Division of Vocational and Technical Education, Virginia Polytechnic Institute and State University, Blacksburg.

Purpose.--To ascertain the percentage of Vocational Agriculture graduates who made use of 144 items of content that were usually taught in Virginia departments of Vocational Agriculture and were either used on the job or off the job by graduates.

Method.--Data were collected through personal interviews of 1,396 former students by their teachers of agriculture. In response to each of the 144 items of subject matter content, one check-mark was made indicating either use on the job, use but not on the job, or did not use. Other items of information collected were number of years of agriculture studied, agriculture option studied, jobs held, year of graduation and attendance at post-secondary institutions. A summary of the information was provided by school, by area and for the entire State of Virginia.

Findings.--1. The items of subject-matter content used on the job by one-third or more of those surveyed numbered 18 out of 144 items. Sixteen of these items were in agricultural mechanics.

2. The items of subject-matter content used by less than 10 percent of those surveyed numbered thirteen. They were 1) conducting plant breeding work, 2) developing and operating an agricultural recreation business, 3) testing milk, 4) producing hybrid and certified seed, 5) propagating plants through grafting and layering, 6) designing a landscape, 7) irrigation, 8) testing soil, 9) registering with breed association, 10) grading livestock, 11) inspecting livestock, 12) selling supplies and materials used for growing plants, and 13) processing for market.

3. One-third of those followed up earned over half of their income from an agricultural occupation. Seventy percent were employed at least part time in an agricultural occupation. When those in mechanical but not agricultural occupations were added, 88 percent of those followed up were making use of several of the subject-matter content items on the job.

4. Use of items related to leadership and club activities as well as business management items appeared to be age related in that a higher percent of earlier graduates were using them.

5. The number of graduates using the items of content among the 471 graduates classified as earning over one-half of their income from an agricultural occupation was nearly five times greater (47.8 versus 9.9 percent) than for the remainder of the group. The key to use of content is establishment in the occupation for which trained.

6. Former students who studied four or five years of agriculture used more subject-matter content items on the job. The average use of all 144 items by those who studied agriculture three years was 17 percent; four years, 23 percent; and five years, 28 percent.

7. Those classified as having earned over half of their income from an agricultural occupation studied agriculture longer than the remainder of those followed up. The amount was two and one-half months more.

8. Approximately one-third of those followed up enrolled for full-time post-secondary education of any kind. Approximately half of that number studied agriculture.

MILLER, LARRY E. A Follow-Up of 1968-73 Non-teaching Agricultural Education Graduates. Staff Study, 1974. Virginia Polytechnic Institute and State University, 28 p. Agricultural Education Program, Blacksburg.

Purpose.--The purpose of this study was to determine the reasons that graduates in Agricultural Education did not enter the profession, or entered the profession and subsequently left it.

Method.--The sample (N=24) was surveyed to gather the desired data. The instrument was researcher developed and contained check lists, open-ended questions, demographic questions, and space for comments. The data were analyzed using frequency counts on items and a compilation of other comments provided by the respondents. Results were presented in figure and table form.

Findings.--The predominant reasons, as reported by the respondents, for not entering or entering and leaving the teaching field were to secure more personal freedom, to secure a higher salary, to improve their family situation and to get away from too much "red tape." Educators and state staff personnel might do well to note, and resolve these factors, as similar studies have consistently drawn similar conclusions. The remediation of these concerns should become a matter of utmost concern as the shortage of teachers in Agricultural Education continues to grow more severe. The respondents also provided valuable curricular input in terms of technical agriculture courses, education courses, and student teaching.

MILLER, LARRY E. Relationship Between First Year Teachers' Morale and Behavior. Staff Study, 1974. Virginia Polytechnic Institute and State University. 30 p. Agricultural Education Program, Blacksburg.

Purpose.--The purpose of this study was to determine what correlation existed between first year teachers' morale and their classroom behavior.

Method.--Through a post test-only design, data were collected from first-year teachers of Agricultural Education in Virginia enrolled in EDVT 5090, Problems in Education. A determination of teacher morale was made by using the Purdue Teacher Opinionaire (PTO), and of teachers' classroom behavior by using Flander's Interaction Analysis (10 category system). The PTO was administered in the Spring after the teachers had about one year of experience, and the interaction analysis was made by the VPI & SU staff during a visit to the school. Data for the PTO were plotted and composed with norms and a comparison group. Means were calculated for four groupings of the ten categories of interaction analysis. Pearson product moment correlations were run on the PTO and interaction analysis groupings.

Findings.--The results of the correlations were low for all variables, except a moderate relationship ($r = -.52$) was found between student talk and teacher morale (total PTO score). This would propose that as respondents' morale decreased the more students were allowed to talk during class; or conversely; as respondents' morale increased the less students were allowed to talk.

The Purdue Teacher Opinionaire revealed some things regarding first-year Virginia Agricultural Education teachers' morale of an apocalyptic nature, however. When compared to other teachers, the norm group and a representative junior and senior high school comparison group, respondents were consistently below the fiftieth percentile. They were far below the tenth percentile on the factors of teaching load and satisfaction with teaching. It would do well for those associated with teacher education in Agricultural Education to replicate this study and to investigate teachers' morale further with other groups of Agricultural Education and Vocational Education teachers.

MULBERY, ROY ZANE. Attitudes Toward the Young Farmers Association of Superintendents and Vocational Agriculture Teachers in Schools with Chartered Young Farmers Chapters in Missouri. Thesis, M.S., 1974. Oklahoma State University. 70 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--The purpose of this study was to determine reactions of superintendents and vocational agriculture teachers in Missouri schools having chartered Young Farmers Associations.

Methods.--A questionnaire was developed to measure reactions of superintendents and vocational agriculture teachers regarding specific needs and purposes of the Young Farmers Association. After refinement by Missouri State Advisory staff and Oklahoma State Agricultural Education

staff, the questionnaires were mailed. Fifty-four responses were returned by both groups. The data obtained were tabulated and expressed as percentages.

Findings.--An overall summary revealed superintendents felt the highest benefit of the Young Farmers Association was the effect it had on the total vocational agriculture program. The highest response by superintendents regarded the vocational agriculture teachers' awareness of the objectives of the Young Farmers Association. Vocational agriculture teachers also responded highest to the effect of the Young Farmers Association upon the total vocational agriculture program. Those statements receiving the highest response by vocational agriculture teachers were as follows: (1) All areas responding from representative geographic regions in Missouri have an adequate number of young farmers to begin a Young Farmers Association and (2) educational tours of other young farmer programs are beneficial to young farmer education.

PEDERSEN, JOE F. An Assessment of Vocational Teachers' Needs for Inservice Education in Region Nine of Kentucky, with Recommendations for Meeting Those Needs. Doctoral Dissertation, 1973. Department of Vocational Education, University of Kentucky, Lexington.

Purpose.--Two aspects of teachers' needs for inservice education were studied. They concerned: (1) inservice education needs of vocational teachers in fourteen areas of responsibility as defined by fifty-nine component responsibilities and (2) preference for characteristics of a delivery system for inservice education activities.

Method.--All vocational instructors (88) teaching in direct operated and reimbursed programs in Region Nine of Kentucky were interviewed by the writer during April and May of 1973.

Findings.--The major findings relative to teacher responsibilities were: (1) that greatest involvement of teachers in inservice education occurred in the area of responsibility Course of Study while least involvement of teachers inservice education occurred in Advisory and Craft Committees, (2) that the greatest proficiency felt by teachers occurred in the area of responsibility Physical Facilities while the least proficiency felt by teachers occurred in Advisory and Craft Committees, (3) that the greatest felt need of teachers for inservice education occurred in the area of responsibility Technical Skill, while the least felt need of teachers for inservice education occurred in Youth Organizations, and (4) that teachers perceive the greatest proficiency in those areas of responsibility for which they had greatest involvement in inservice education.

The major findings relative to the thirteen characteristics of a delivery system for inservice education activities were: (1) that significant differences occurred in the mean scores between past and preferred involvements in inservice education activities for twelve of the thirteen characteristics studied and (2) that greatest discrepancies between

mean scores occurred for "involving teachers in the planning," "providing college or certificate credit," and "reimbursing expenses."

PENNINGTON, ELMER KENT. The Occupational Decisions Made by State Farmers and/or State Proficiency Award Winners in the Thomas Schools From 1946 Through 1974 and Selected Information Related to Those Decisions. Report, M.S., 1974. Oklahoma State University. 52 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--The purpose of this study was to determine what occupational decisions have been made by State Farmers and/or State Proficiency Award winners in the Thomas schools and if making State Farmer and/or winning a State Proficiency Award is justifiable, along with other information related to those decisions.

Method.--A name list of the men holding the State Farmer degree and those placing in the State Proficiency Award Program from 1938-1974 was obtained from the State Department of Vocational Agriculture. There were 56 persons on this list. Questionnaires were then sent to these 56 persons. Fifty-three questionnaires were returned.

Findings.--Based on the data collected, it was found that in the opinion of successful applicants that making State Farmer and/or winning a State Proficiency Award is justified by the findings that 100 percent of the respondents stated that it was worth the effort to make the degree and award, and 100 percent of the respondents also stated that students should seek the degree even though their interests might not be in farming. Justification was also provided when 89 percent of the respondents revealed that the degree proved beneficial in the occupation in which they were at present and 86 percent stated that the degree was beneficial to them in other occupations in which they had been employed. It is further concluded that after compiling the list of occupational decisions made by the 53 State Farmers and/or State Proficiency winners that they have continued to excel in their educational pursuits and have felt that more education was an important factor for any type of advancement. The group has compiled a list of 42 Proficiency Awards, including two Regional winners and one National winner.

POWERS, BETTY CLICK. The Relationship of Occupational Aspirations and Expectations to Selected Personal, Family, Community and School-Related Factors. Unpublished Ed.D. Dissertation, 1974. Department of Vocational Education, University of Kentucky, Lexington.

Purpose.-- This study sought to answer two questions concerning the occupational aspirations and expectations of ninth grade students in the Hazard Educational Region of Eastern Kentucky. First, what is the level of occupational aspirations of the students? Second, what relationship exists between this level of occupational aspiration score and selected factors: (1) personal, (2) family, (3) community, and (4) school related?

Method.--Two thousand fifty five ninth grade students in the Hazard Educational Region comprised the population for the study. Data were collected concerning: (1) idealistic and realistic occupational aspirations and expectations at both long-range and immediate time periods; (2) the relationship of these aspirations and expectations to selected personal, family, community and school-related factors.

Findings.--The major findings indicated a significant relationship existed between the following variables: (1) birth order and level of occupational aspiration; (2) student's self-esteem and occupational aspirations: (3) educational attainment of the parents and occupational aspirations of the student; (4) student's perception of parental interest in the student and occupational aspirations; (5) occupational status (prestige) of the father, and occupational aspirations of the student; (6) total enrollment in the school and occupational aspirations; (7) student's self-perception of "liking" school and occupational aspirations of the student; (8) student's participation in school-related, extra- or co-curricular activities and occupational aspirations.

No significant difference existed between level of occupational aspirations of males and females. Students living in small towns had slightly higher occupational aspirations than those living in rural areas. Students whose mothers were gainfully employed had higher occupational aspirations than those whose mothers were not employed.

QUINN, MILDRED L. HUDNALL. A Study of the Teaching of Business Arithmetic and Clerical Office Machines (Calculators) as a Combined Course. Department of Vocational Education, University of Kentucky, Lexington.

Purpose.--A three-year study was conducted to ascertain whether two previously separate courses, business arithmetic and clerical office machines, could be taught in a practical way by integrating business arithmetic principles into the computational machines class. To achieve this purpose, pre and posttest scores were used to ascertain whether there was a significant difference in the achievement of students in experimental classes (combined) and those in traditionally-taught classes (separate).

Method.--Data were collected and analyzed with regard to achievement in arithmetic by students in the traditionally-taught arithmetic classes (Group 1), students in the combined classes taking the arithmetic post-test with the calculator (Group 2), those in the combined classes taking the arithmetic post-test with pencil and paper (Group 5), students in the traditionally-taught clerical office machines classes (Group 3), and those in combined classes taking machine operations post-test (Group 4). Through analysis of ACT mathematics scores, it was ascertained that no initial group differences were present prior to treatment.

Findings.--It was hypothesized that there would be no significant difference in arithmetic achievement between Groups 1 and 2, 1 and 5, and 2 and 5; and that there would be no significant difference in machine operation achievement between Groups 3 and 4. To test the hypotheses the z-test was employed.

There was no significant difference between Groups 1 and 2, 1 and 5, and 2 and 5 with regard to achievement on the arithmetic pretest. However, a computed z of 2.40 between Group 1 and 2 and a computed z of 2.06 between Groups 1 and 5 indicated that those students who worked problems with the aid of calculators during the semester achieved significantly higher on post-test, whether they completed the post-test with calculators or with pencil and paper. In addition, a computed z of 2.266 between Groups 3 and 4 indicated that those students in the combined classes achieved higher scores in machine operation.

This long-range study corroborated the short-term studies of a few in business education who have said that business arithmetic COULD be taught as a combined course. It has strengthened their stand, and results indicated that the two courses SHOULD be taught as a combined course.

RICHARDS, WHEELER LEE. A Study of Factors That May Be Used To Predict the Presence or Absence of Area Vocational Schools in Alabama Counties. Master's Report, M.S. 1974. Alabama A & M University, Department of Agribusiness Education, Normal.

Purpose.--The purpose of this study was to examine the factors that make the Appalachian and Non-Appalachian Counties of Alabama different as it pertains to what counties have Area Vocational Centers located within their boundaries. Alabama is divided into what is known as Appalachian Alabama (Northern Alabama), and Non-Appalachian Alabama (Southern Alabama). This division line is set by the President's Appalachian Regional Commission. The major purpose of this investigation was to determine the effect that the Appalachian Regional Commission has on the growth of Area Vocational Centers within the state as it pertains to Appalachian Alabama.

Method.--The factors that were selected for the investigation were, the median family income for the county, the percent non-white population for the county, out-migration within the Appalachian region, and the presence or absence of an Area Vocational Center.

Findings.--Using the presence or absence of an Area Vocational Center as the dependent variable in the multiple regression equation it was found that the counties with the largest percent of non-white population have a smaller chance of having an Area Vocational Center locate within that county. This negative relationship increases when we look at the chances of a county with a large percent non-white population having a proposed or existing Area Vocational Center.

The Counties within the Appalachian Region of Alabama had a higher median family income in 1960 by approximately seven-hundred dollars and by 1970 this gap had widened to over one-thousand dollars in favor of Alabama's Appalachian Region.

Out-migration for the Non-Appalachian was greater than for the Appalachian Region of Alabama.

It was found that the number of Area Vocational Centers in Alabama's Appalachian Region was three times the number found in counties found outside of the region.

The above trends that differientiate the Appalachian Region of Alabama from the Non-Appalachian Region can be attributed to the contributions given the Appalachian Region by the President's Appalachian Regional Commission.

To reverse or at least equalize the current trends in Alabama the state should try a system of equalizing the aid given to each county in Alabama, especially those counties that are not covered by the Appalachian Regional Commission.

ROBINSON, WARD R. Teachers' Perceptions of the Use and Development of Curriculum and Instructional Materials for Agri-Business and Natural Resources. (Under the direction of Texton R. Miller) North Carolina State University, Department of Agricultural Education, Raleigh.

Purpose.--The purpose of this study was to analyze teachers' perceptions of the use and development of curriculum and instructional materials in junior and senior high school programs for agri-business and natural resources in the public schools of North Carolina.

Method.--Data were collected during the 1972-73 school year from 87 junior and senior high school teachers. Assistance for the development of a data collecting instrument was provided by a seven-member curriculum committee, 12 graduate students, and the researcher's graduate committee.

A 16-member panel of curriculum experts was used to validate guidelines proposed as criteria for the development and evaluation of curriculum and instructional materials.

Findings.--The study revealed that: (1) curriculum guides used most needed revising; (2) guides were used to a "moderate" extent; (3) differences among groups of teachers seldom occurred in the use of guides for factors of age, years of teaching, educational level, preservice education, and geographical location; (4) mountain teachers favored the Agricultural Mechanics guide more than teachers in the coastal plains or piedmont; (5) guides were most needed for Exploration in Grades 7-9, FFA Leadership, and the Disadvantaged; (6) there was a strong need for "short term" curriculum units in horticulture, forestry, and farm mechanics; (7) types of materials used most by teachers with students were filmstrips, agricultural books, and films - whereas books, bulletins, and magazines were used most for planning lessons and teachers professional growth; (8) State Department personnel, teacher educators, and teachers most often developed, revised, and evaluated materials; and (9) full-time curriculum specialists were needed to survey and upgrade materials.

SHEMPEMBA, FABYAN B. L. Concepts of Successful Factors Contributing to the Organization and Maintenance of 4-H Clubs with Implications for Tanzania. Report, M.S., 1973, Oklahoma State University. 53 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--The purpose of this study was to identify those concepts and characteristics of 4-H youth work that are relevant in developing an effective program for youth work in Tanzania within the Ministry of Agriculture.

Method.--Books, reports, bulletins, journal articles, and personal visits with Extension personnel in the United States were used in collecting information.

Findings.--This study showed that youth clubs provided an informal type of education which usefully supplemented the knowledge provided by the school. The youth program should fit the needs of youth and the community as a whole and take into consideration the traditions, customs, culture, and structure of the society.

SMITH, CHARLES W. and J. C. ATHERTON. Career Education in Louisiana: A Status Report. Staff Study. Agricultural Education Department, Louisiana State University, Baton Rouge.

Purpose.--The purpose of this study was to provide data for use in program planning in career education for the 1974-75 school year by local school systems, the State Department of Education and teacher educators of state colleges and universities. In addition the information obtained should provide some measure of the success career education programs have had approximately one year following implementation.

Method.--The descriptive method of research was utilized in this investigation. Data were gathered by means of a questionnaire developed cooperatively between the Division of Instructional Services, State Department of Education and the School of Vocational Education, Louisiana State University.

Questionnaires were mailed to all parish and city school superintendents and career education coordinators. They were requested to complete one questionnaire for their system and to return the completed questionnaire by mail to the Division of Instructional Service, State Department of Education.

A follow-up letter was sent to those school systems that had not returned a completed questionnaire within three weeks. Telephone calls were made two weeks later to those systems that still had not returned their questionnaire. Questionnaires were received from all 66 parish and city school systems of the state from which the data for this investigation were obtained.

Findings.--From an analysis of the data the following conclusions were reached concerning the present status of career education in the state:

1. All 66 school systems of the state are implementing career education programs to varying degrees.
2. The in-service education component of the State Plan for Career Education appears to have been highly successful.
3. Career education programs were planned and implemented to meet individual system needs.
4. Career education program emphasis is broad in scope in some systems and relatively narrow in others.
5. Implementation of career education in classrooms appears to be progressing satisfactorily in the majority of the systems.
6. A variety of desirable activities are being utilized with students that should increase their self-awareness, career awareness, decision-making ability, and vocational and academic skill development.
7. The attitudes of school personnel, students, and the community are generally supportive of the career education movement.
8. Vocational counseling and vocational course offerings have been expanded as a result of the employment of additional counselors and teachers in many systems.
9. Career education appears, to some extent, to have made a difference in the teaching-learning environment in many schools of the state.
10. There are a multitude of personnel training needs foreseen for the 1974-75 school year.

SWINGLE, THEODORE PAUL. Vocational Education Preferences of Senior High School Students in a Four County Area of Florida. Dissertation, Ed.D., 1974. Oklahoma State University. 163 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--The study was designed to obtain responses regarding further vocational education preferences from senior high school students in a designated four county area of Florida.

Method.--A questionnaire was submitted to all senior high school students in attendance in the four county area being served by Indian River Community College of Ft. Pierce, Florida. Responses totaled 3,742, coming from current enrollees in four public high schools and three non-public secondary programs. Descriptive data were presented and analyzed statistically by the chi square tests when applicable. The data were analyzed, compared, and related to census data, Department of Labor information and curricula being offered in the high schools reported in the study and in the Indian River Community College.

Findings.--It was found that 76.3 percent of the respondents desired vocational education. A slightly greater percentage of the females, 77.8 percent, desired vocational education than did males, 74.7 percent.

Males had a wider range of program preferences, with only 23.1 percent of the choices being in the eight most popular ranked preferences, while 41.1 percent of the female choices were in the programs so ranked.

A greater percentage of male respondents were enrolled in vocational education than was true for females. Contrastingly, a greater percentage of females were undecided as to plans after high school.

Further findings included the following: (1) More than three-fourths of the respondents definitely indicated a desire to enroll in vocational education; (2) approximately 12 percent of the respondents specified training choices other than the 38 listed on the questionnaire. Agribusiness and natural resources occupations accounted for the greater percentage of these, followed by preferences for training in professional and transportation occupations; (3) among female respondents, secretarial science was found to be the most popular vocational education choice, followed by child care and service as a teacher aide; (4) among male respondents, auto mechanics was the most popular choice, followed by carpentry and radio-television repair; (5) the parents' occupation is not a very reliable indicator of student interest in a life occupational area; (6) expansion of programs in health occupations should be accomplished based upon the high level of expressed interest shown by respondents; and (7) the community college and the four-year institutions can be expected to continue enrollment of somewhat over 40 percent of the graduating high school seniors, while business schools and vocational-technical schools will likely account for up to 8.5 percent of future enrollment.

TACY, GAIL GEORGE. A Study of Certain Management Practices Related to Sheep Production by Adult Farmers in Highland County. Thesis, M.S., 1974, Virginia State College. 49 p. Library, Virginia State College. Petersburg.

Purpose.--To secure information regarding the practices which the sheep producers employed and to develop a list of recommendations for professional agricultural workers for use in the educational programs.

Method.--Literature was reviewed and pertinent information was secured to supplement the writer's observations in the development of the questionnaire which contained 73 questions relating to management practices. Alternate names from the county extension agent's mailing list were selected as potential respondents. The questionnaire was completed and returned by 76 percent of the selected group of farmers.

Findings.--Caring for and protecting ewes and lambs, providing balanced rations, handling wool properly, and adequate housing were reported to be of major importance. In general, the farmers indicated if effective management practices were established during the early stages of the enterprise, the favorable results would probably stimulate the application of the essential improved practices. Among the areas which the farmers expressed the greatest needs for improved knowledge and/or skills were purchasing rams and housing while high degrees of efficiency were indicated for feeding, castrating and docking. In terms of the relative value of certain sources of information, the respondents listed, in order of importance, reading literature and instructor's visits, with much favor also expressed in support of young farmer classes and tours.

UPDYKE, GARY WADE. New Teachers' Perception of the Pre-Service Agricultural Education Program at Oklahoma State University. Dissertation, Ed.D., 1974. Oklahoma State University. 130 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--An effort was made to determine how new teachers of vocational agriculture perceived their pre-service training program in the Agricultural Education Department at Oklahoma State University. Also, an effort was made to determine if the graduates who entered the profession in Oklahoma perceived values differed from those who went out of state to teach and if the transfer students differed from the non-transfer students.

Method.--A total of 83 graduates who certified to teach and entered the profession in 1971 and 1972 were included in the study. Of the 83 graduates, 55 entered the profession in Oklahoma and 28 entered the profession in ten different states. A total of 79 (95 percent) returned their completed questionnaires, in which 67 (85 percent) were transfer students.

Part one of the questionnaire identified nine teaching areas and asked the graduates to respond as to the degree of competence held, the sources of competence development, the need or use of competence, and the need for more instruction in the areas. The second part included statements developed to determine if the graduates felt they were afforded a sufficient opportunity by the Agricultural Education Department for personal and professional development.

Findings.--In general, the respondents indicated they held a sufficient degree of competence in all the teaching areas and used these competencies extensively except for Vocational Agriculture Occupational Training and Young and/or Adult Farmer Advisement. They also indicated that Oklahoma State University was the most important source for the development of all the competencies as they pertained to the role of a vocational agriculture teacher, except for advisement of the Future Farmers of America organization.

Respondents showed a concern for improving their professional capabilities with over 50 percent wanting additional instruction in all the areas. They also felt they were afforded a sufficient opportunity to develop both personally and professionally. However, their response indicated that more emphasis should be placed on their responsibilities of setting up and working with an advisory committee and broadening their scope of Mechanized Agriculture.

There was no significant difference between the Oklahoma and Out-of-State teacher groups in their perceptions of the pre-service program in Agricultural Education at Oklahoma State University. Neither was there any significant difference in the perceived values of the Non-Transfer and Transfer students.

VIRDURE, LEDELL D. Occupational Expectations of Students in the College of Agriculture at Southern University. Research Study, 1974. Agricultural Education Department, Louisiana State University, Baton Rouge.

Purpose.--The primary concern of this study was to identify the occupational expectations of students enrolled in the College of Agriculture at Southern University, Baton Rouge, Louisiana. It was concerned with reasons why students enrolled in the College of Agriculture do not select the Vocational Agricultural Education curriculum. It was further concerned with the identification of factors which affect the choice of agricultural curriculum and/or curricula.

Method.--The descriptive survey method, with questionnaire technique, was used in this study. Data were obtained through the administration of a multiple choice interview schedule of all of the 66 students enrolled in the College of Agriculture at Southern University at Baton Rouge, during the Spring Semester, 1974. This study was limited to sophomores, juniors and seniors enrolled in the College of Agriculture.

The statistical procedure utilized involved frequency and percentage distribution and the chi-square (X^2) test of significance.

Findings.--Factors showing relationship included: (1) family related, (2) school related, (3) personal related, and (4) community related.

1. The high school vocational agriculture teacher had the greatest influence on students' vocational choices. Father and mother ranked second and third, respectively, as the most influential person on vocational choices.

2. Sixty-four and two-tenths per cent of the students were enrolled in a vocational agriculture class for four years in high school.

3. Eighty-five per cent of the students made occupational choices with the span from tenth grade through the second year in college. The critical period of occupational choices was during the last year in high school and the first year in college.

4. Over sixty per cent of the students discussed with high school guidance counselors and principals vocational choices. Twenty per cent felt the importance of the discussion was "very great." Over twelve per cent maintained such discussion as unimportant.

5. Forty-nine and nine-tenths of the students had lived on the farm.

6. Students from rural and urban communities tend to distribute themselves over the occupational categories in a similar manner. The chi-square value was 1.7. In order to be significant at the .05 level of confidence it should be 7.815 with three degrees of freedom.

7. College students in agriculture tend to select teaching careers less frequently as they advance in college classification.

8. Fifty-six and one-tenth per cent of the students enrolled in the College of Agriculture came from the rural areas. Forty-three and nine-tenths per cent of the students came from the urban and suburban areas.

9. Forty-three and nine-tenths per cent of the students selected agricultural economics as their major; twenty-two and seven tenths per cent, plant science; twenty-one and two-tenths per cent, vocational agricultural education, and twelve and one-tenth per cent, animal science.

10. Seventy-eight and seven tenths per cent of the College of Agriculture students are expected to follow non-teaching agricultural occupations

11. The students enrolled in the College of Agriculture selected technical agricultural curricula because: (a) they do not like teaching vocational agriculture, (b) the problem of finding a job, (c) they want to go into business for themselves, and (d) they do not like the teaching salary.

12. Sixty-three per cent of the students enrolled in the technical agriculture curriculum because of scholarship grants.

WADE, CHARLES D. A Comparison of the Eleventh and Twelfth Grade Dropouts and Non-Dropouts from Vocational Education Programs. Unpublished Doctoral Dissertation, 1974. Department of Vocational Education, University of Kentucky.

Purpose.--The primary purpose was to determine if eleventh and twelfth grade students who drop out of vocational education programs in Kentucky differ on selected variables from those students who do not drop out.

Method.--There were 40,836 non-dropouts and 3,205 dropouts for a total population of 44,041 students on which data were available from the Student Data System in the Kentucky Department of Education. The difference in dropouts and non-dropouts were described by dropout rate for the eleven variables on which the total population data were available. These variables were: (1) vocational region of Kentucky, (2) age, (3) sex, (4) rate, (5) grade level, (6) type of school, (7) type of vocational program, (8) disadvantaged or non-disadvantaged, (9) category of disadvantaged, (10) handicapped and non-handicapped, and (11) category of handicapped. A sample of 1,400 students was taken to collect data on three additional variables: (1) membership in vocational student organizations, (2) intelligence and achievement level, and (3) general aptitude.

Findings.--All variables from the total population had a wide range of differences in the dropout rate of students. Only membership in student organizations was significant for the variables tested by use of a sample.

The typical dropout from a vocational program in Kentucky was a white male from the eastern part of the state. He was over 17 years of age and was still in the eleventh grade. He was enrolled in a trade and industrial program in a vocational school and he was not a member of a vocational student organization. He was average in intelligence, achievement, and aptitude. If he were disadvantaged, the teacher identified him as a juvenile delinquent or as dropout prone. If he were handicapped, he was most likely classified by the teacher as hard of hearing, seriously emotionally disturbed, or mentally retarded.

WALLS, ELIZABETH I. An Appraisal of Business Education Programs in Post-Secondary Institutions in Kentucky. Doctoral Dissertation, 1973. Department of Vocational Education, University of Kentucky, Lexington.

Purpose.--The primary purpose of this study was to make an appraisal of business education programs in post-secondary institutions in Kentucky. A secondary purpose was to determine the current status of post-secondary programs and the extent of their coordination with those of secondary and four-year institutions.

Method.--This study, which was descriptive in nature, included Kentucky's thirteen community colleges and the nine area vocational schools that have business education programs. Primary data were gathered by an interview form which was completed during a personal interview with the chairman of the business department or senior staff member in each of the participating institutions. Other sources of primary data included current catalogs and brochures provided by participating post-secondary institutions, catalogs of eight state-supported universities, and course listings of 87 high schools which had been designated as "feeder" high schools.

Findings.--Approximately 26 percent of the total program offerings of the community colleges and 15 percent of the total offerings of area vocational schools were business related. These programs were largely terminal in nature.

Curricula related to secretarial-stenographic education were offered most frequently in both types of institutions.

There was unwarranted duplication and overlapping of programs and courses; and in almost one-third of the post-secondary institutions, enrollment problems had been created by the duplication of program and curricula offerings.

Coordination of business education programs at the various levels of instruction was sporadic as post-secondary institutions made only limited use of articulation practices.

Advance placement procedures and standards were inadequate and generally lacked uniformity.

Advisory committees used by the faculties of both types of institutions for program planning and coordination generally did not include professional educators in their memberships.

A high degree of communication and joint planning between and among secondary, post-secondary, and four-year institutions in Kentucky was needed in order to implement new and better business education programs with an eventual elimination of the existing overlap and duplication effort.

WEBB, EARL S., LARRY K. KRONKE AND CHESTER L. DARCEY. A Follow-up Study of Graduates of the Pre-Employment Laboratory Program in Farm Machinery Service and Repair in Texas. Staff Study, 1974. Texas A & M University. 12 p. Department of Agricultural Education, Texas A & M University, College Station.

Purpose.--The purpose of this study was to evaluate selected aspects of the pre-employment program in farm machinery service and repair in Texas to the end that adjustments might be made, if needed, in pre-service and in-service teacher education programs.

Method.--Data were obtained by use of a questionnaire from 32 former students who were employed as mechanics; from 27 who had terminated employment as mechanics; and from 15 employers of the former students.

Findings.--Of the 59 respondents 81.3 percent were employed in a commercial business. Slightly more than one-half worked on automobiles. Tractor mechanics ranked second with 13.6 percent followed, in order, by truck, small engines, farm equipment, heavy equipment, and air craft mechanics.

Former students thought the program prepared them well for employment as mechanics, but noted a general lack of understanding and skill development in the in the areas of hydraulics, transmissions, differentials and diesel systems. Employers rated the former students at a high level on mechanical ability, cooperation, enthusiasm, promptness, dependability, relations with customers, and maintenance of tools. They also noted a general deficiency in knowledge and skills in the same mechanical areas identified by the former students.

WHITE, JAMES DAVID. An Evaluation of Fund Raising Methods and Activities Used in Financing Future Farmers of America Programs of Work in Local Chapters of the Central Oklahoma Vocational Agriculture Supervisory District. Report, M.S., 1974. Oklahoma State University. 60 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--The purpose of this study was to determine the methods and activities used to finance FFA chapter programs of work in the Central Oklahoma District and to determine the expenditure of funds in those chapters.

Method.--The data for this study was collected from mail questionnaires from 60 FFA chapters in the Central Oklahoma District.

Findings.--Information in the study reflected that 60 chapters surveyed had an average income of $2,150.36 and an average expense of $1,366.07. Sausage sales, slave sales, FFA rodeos, and pie suppers were the most popular fund raising activities. Fruit sales, sausage sales, pie suppers, and slave auctions provided the largest percentage of total income for Central District Chapters. Sixty chapters (100 percent) spent funds for supplies (classroom, shop, or greenhouse); however, the FFA banquet and awards provided the largest percentage of the total expense.

Forty-eight chapters (81.35 percent) had planned financial budgets as a part of their chapter programs of work. Fund raising activities should be approved by the school administration. In view of the number of responses, door-to-door selling would be a questionable method of raising FFA funds. Fund raising projects should be of the nature that all chapter members may participate.

WILKIE, GLENN EDWARD. The Occupational Status and Educational Needs of the 1970 and 1971 Graduates of the College of Agricultural Sciences. Thesis M.S., 1974. Texas Tech University. 98 p. Library, Texas Tech University, Lubbock.

Purpose.--(1) To determine the occupational status of the graduates. (2) To obtain an evaluation of various course areas. (3) To determine the courses in which more emphasis should be placed in revising a degree program or counseling students. (4) To determine the course areas in which a more specific type of instruction is needed.

Method.--A questionnaire was mailed to all the 1970 and 1971 graduates of the College of Agricultural Sciences. Sixty-one percent of the graduates responded to the questionnaire.

Findings.--Of the graduates responding, 21 percent were farmers or ranchers at the time of this study. Fifty-eight percent were in off-farm agricultural occupations and 21 percent were involved in non-agricultural occupations.

The graduates revealed a need for more instruction concerning business administration courses. Approximately 63 percent of the graduates desired more instruction in management, accounting and finance and approximately one-half of the graduates expressed a need for additional instruction in marketing and business law. One-third of the individuals responding believed they needed more instruction in mathematics and approximately one-fourth believe additional written communications and speech would be

beneficial. Additional instruction in mechanized agriculture, animal science and agricultural economics was desired by 40 percent of the graduates and 28 percent believed they needed more instruction in agronomy and range and wildlife management.

The graduates comments concerning their college education indicates a need for courses which are taught on a more practical basis, the need to update various course areas and the need for more counseling during the Freshman and Sophomore years.

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1974-75

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